

DETAILED ACTION

Introduction

1. This action is in response to the applicant's response filed on 01-17-2007.

Claims 1-7 are pending.

Drawings

2. The informal drawings are not of sufficient quality to permit examination. Accordingly, the newly added limitations in the replacement drawing fig.3 are not supported in the specification nor in fig.3 original presented, for example, the connections of the block (3RD set intermed. Signal (120)) and the block (2nd set input signal & 2 set HRTFS (110)). Appropriate correction is required.

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

No new matter should be entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recited "one output signal from a first set of sound signals from at least one input signal from a second set of sound signals having a related second set of Head Related Transfer Functions". However, the specification and figures do not clearly teach how "the one output signal is from a first set of sound signals belong to at least one input signal belong to a second set of sound signals having a related second set of Head Related Transfer Functions". Applicants points out Fig. 2, where HPL, belonging to a first set of sound signals, HPL and HPR, is generated from at least one input signal, e.g., CHI, belonging to a second set of sound signals, CHI and CH2 (see the remarks page 8, third paragraph). It is unclear to the examiner how CHI and CH2, have a related second set of Head Related Transfer Functions (see fig. 2).

5. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 7 recited "one output signal from a first set of sound signals from at least one input signal from a second set of sound signals having a related second set of Head

Related Transfer Functions". Applicants points out Fig. 2, where HPL, belonging to a first set of sound signals, HPL and HPR, is generated from at least one input signal, e.g., CHI, belonging to a second set of sound signals, CHI and CH2 (see the remarks page 8 third paragraph). It is unclear to the examiner how CHI and CH2, have a related second set of Head Related Transfer Functions (see fig. 2).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen (US PAT. 6,990,205).

Consider claim 7, as base on 112 first paragraph problem state above, Chen teaches a media system (see fig.4B) for generating at least one output (56) signal belong to a first set of sound signals (yl(n)) from at least one input (40) signal belong to a second set of sound signals (42) having a related second set of Head Related Transfer Functions (see col. 2 line 28-48 and col.5 line 19-22), said media system comprising:

means (52) for determining for each signal in the second set of sound signals (42), a weighted (q) relation comprising at least one signal belong to a third set of intermediate sound signals (q1-qm) and at least one weight value (q);

means (42) for determining a first set of Head Related Transfer Functions based on the second set of sound signals (48 to the adder 26), the second set of Head Related Transfer Functions and the weighted relation; and

means (42) for transferring at least one signal from the third set of intermediate sound signals (52) by means (48) of at least one HRTF from said first set of Head Related Transfer Functions in order to generate at least one output (56) signal belonging to said first set of sound signals (y1(n)). and see col. 2 line 28-48 and col.5 line 19-22 and col.11 line 61-col. 12 line 18).

Consider claim 1, it is a method claim corresponding to system claim 7. See claim 7 for rejection.

Consider claims 2-3, Chen teaches that the step of determining for each signal, i in the second set of sound signals determines CHI_i (see fig.4B, (42)) = $\alpha_i \cdot L + \beta_i \cdot R$, wherein α_i and β_i each is the weight value (q), and wherein L and R each is a signal belong to said third set of intermediate sound signals (col.11 line 61-col. 12 line 18) ; and the step of determining for each signal determines $CHI_1 = \alpha_1 \cdot M$ and $CHI_2 = \alpha_2 \cdot M$, wherein α_1 and α_2 each is the weight value (q), and wherein M is a signal belong to said third set of intermediate sound signals (col.11 line 61-col. 12 line 18).

Consider claims 4-6, Tucker teaches that the media system is a TV, a CD player, a DVD player, a Radio, a display, an amplifier, a headphone or a VCR (see col. 4 lines

38-64); and a computer system (reads on, programmed digital signal processor and software) for performing the method according to claim I (see fig. 4B and see col. 4 lines 38-64); and a computer program product comprising program code means stored on a computer (reads on, programmed digital signal processor, and software) readable medium for performing the method of claim 1 when the computer program is run on a computer (see fig. 4B and see col. 4 lines 38-64).

Response to Arguments

8. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant argued that the 112 first paragraph as failing to comply with the enablement requirement, in that the limitation "one output signal from a first set of sound signals from at least one input signal from a second set of sound signals having a related second set of Head Related Transfer Functions" is not clearly taught in the specification and figures (see the remarks page 8, 2nd and 3rd paragraph).

The examiner responds that applicants points out Fig. 2, where HPL, belonging to a first set of sound signals, HPL and HPR, is generated from at least one input signal, e.g., CHI, belonging to a second set of sound signals, CHI and CH2 (see the remarks page 8, third paragraph). It is unclearly to the examiner how does CHI and CH2, having a related second set of Head Related Transfer Functions (see fig. 2). Therefore, the 112 first paragraph rejection is maintained.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Arts (US PAT. 7,110,566) is cited to show other related generation of a sound signal.

11. Any response to this action should be mailed to:

Mail Stop ____ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

Art Unit: 2615

P.O. Box 1450
Alexandria, VA 22313-1450
Facsimile responses should be faxed to:
(571) 273-8300
Hand-delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See
/Lun-See, Lao/
Examiner, Art Unit 2615
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501
Date 06-11-2008

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2615